

**I claim:**

15  
194  
1. A method of assembling batteries comprising the steps of:  
(a) supplying a battery container having a plurality of battery plates and a battery cover having at least two terminal apertures and at least two plate strap mold wells;

(b) heating an open edge of the battery container and an open edge of the battery cover;

(c) providing at least two terminal molds adjacent the at least two terminal apertures in the battery cover;

(d) filling said at least two terminal molds and said at least two plate strap mold wells of the battery cover with molten lead from a lead dispenser/heater unit; and

(e) withdrawing said lead dispenser/heater unit and sealing the battery cover to the battery container and substantially simultaneously fusing plate lugs of the battery plates with the molten plate straps.

2. The method of assembling batteries of claim 1, further comprising the step of:

(f) covering exposed areas of molten lead within said heater body with an inert gas.

3. The method of assembling batteries of claim 1, further comprising the step of:

(f) heating the plate lugs of the battery plates with a heating station before insertion into molten plate straps.

4. The method of assembling batteries of claim 1, further comprising the step of:

(f) replenishing a reservoir of molten lead in said lead dispenser/heater unit with a portion of a strip of lead.

5. The method of assembling batteries of claim 1, further comprising:

said lead dispenser/heater unit including a container heating platen, a cover heating platen, heater body and a lead dispensing shuttle plate, said container heating platen being mounted to a top of said heater body, said cover heating platen being attached to a bottom of said heater body, said lead dispensing shuttle plate being slidably retained within said heater body, said lead dispensing shuttle plate dispensing molten lead in a dispensing and receiving molten in a fill position.

6. The method of assembling batteries of claim 5, further comprising:

a container insulator being disposed between said heater body and said container heating platen, a cover insulator being disposed between said heater body and said cover heating platen, a plurality of heater elements being disposed in said heater body, container heating platen, and cover heating platen.

7. The method of assembling batteries of claim 1, further comprising:

each said terminal mold having a terminal cavity formed in a top thereof, at least one liquid coolant path and at least one mold heater being formed in a body of each said terminal mold.

8. A method of dispensing metered portions of molten lead comprising the steps of:

(a) supplying a strip of lead;

(b) providing a heater body having a lead reservoir formed therein, said heater body providing sufficient heat to form molten lead;

(c) providing a lead dispensing shuttle plate having at least two lead metered cavities, said at least two metered cavities being filled with molten lead in a fill position, said at least one metered cavity releasing the molten lead in a dispense position; and

(d) moving said heater body from a lead dispensing position to release metered portions of molten lead to a feed position to receive a portion of said strip of lead.

9. The method of dispensing metered portions of molten lead of claim 8, further comprising the steps of:

(e) covering exposed areas of molten lead with an inert gas within said heater body.

10. The method of dispensing metered portions of molten lead of claim 8, further comprising:

(e) heating the plate lugs of the battery plates with a heating station before insertion into molten plate straps.

11. The method of dispensing metered portions of molten lead of claim 8, further comprising:

a container heating platen being disposed on a top of said heater body, a cover heating platen being disposed on a bottom of said heater body, said container heating platen heating an open end of the battery container, said cover heating platen heating an open end of the battery cover.

12. The method of dispensing metered portions of molten lead of claim 11, further comprising:

a container insulator being disposed between said heater body and said container heating platen, a cover insulator being disposed between said heater body and said cover heating platen, a plurality of heater elements being disposed in said heater body, container heating platen, and cover heating platen.

✓ 13. The method of dispensing metered portions of molten lead of claim 11, further comprising the step of:

(e) joining the open end of the battery container with the open end of the battery cover.

14. A method of dispensing metered portions of molten lead comprising the steps of:

(a) providing a heater body having a lead reservoir formed therein, said heater body providing sufficient heat to form molten lead;

(b) providing a lead dispensing shuttle plate having at least one lead metered cavity, said at least one metered cavity being filled with molten lead in a fill position, said at least one metered cavity releasing the molten lead in a dispense position; and

(c) injecting inert gas over a top of said lead reservoir, forcing inert gas into said at least one metered cavity, the molten lead being dispensed through said at least one metered cavity and at least one lead dispense opening disposed below said at least one metered cavity, said inert gas preventing air from entering said at least one lead metered cavity.

15. The method of dispensing metered portions of molten lead of claim 14, further comprising the steps of:

(d) moving said heater body from a lead dispensing position to release at least one metered portion of molten lead to a feed position to receive a supply of lead.

16. The method of dispensing metered portions of molten lead of claim 14, further comprising the step of:

(e) heating the plate lugs of the battery plates with a heating station before insertion into molten plate straps.

17. The method of dispensing metered portions of molten lead of claim 14, further comprising:

a container heating platen being disposed on a top of said heater body, a cover heating platen being disposed on a bottom of said heater body, said container heating platen heating an open end of the battery container, said cover heating platen heating an open end of the battery cover.

18. The method of dispensing metered portions of molten lead of claim 17, further comprising:

a container insulator being disposed between said heater body and said container heating platen, a cover insulator being disposed between said heater body and said cover heating platen, a plurality of heater elements being disposed in said heater body, container heating platen, and cover heating platen.

19. The method of dispensing metered portions of molten lead of claim 17, further comprising the step of:

(e) joining the open end of the battery container with the open end of the battery cover.

20. A method of assembling batteries comprising the steps of:

(a) supplying a battery container having a plurality of battery plates and a battery cover having at least two terminal apertures and at least two plate strap mold wells;

(b) heating an open edge of the battery container and an open edge of the battery cover;

(c) providing at least two terminal molds adjacent the at least two terminal apertures in the battery cover;

(d) protecting molten lead inside a lead dispenser/heater unit from air by flooding all exposed areas with inert gas;

(e) filling said at least two terminal molds and said at least two plate strap mold wells of the battery cover with molten lead from a lead dispenser/heater unit; and

(f) withdrawing said lead dispenser/heater unit and sealing the battery cover to the battery container and substantially simultaneously fusing plate lugs of the battery plates with the molten plate straps and at least two terminals.

21. The method of assembling batteries of claim 20, further comprising the step of:

(f) heating the plate lugs of the battery plates with a heating station before insertion into molten plate straps.

22. The method of assembling batteries of claim 20, further comprising the step of:

(f) replenishing a reservoir of molten lead in said lead dispenser/heater unit with a portion of a strip of lead.

23. The method of assembling batteries of claim 20, further comprising:

said lead dispenser/heater unit including a container heating platen, a cover heating platen, heater body and a lead dispensing shuttle plate, said container heating platen being mounted to a top of said heater body, said cover heating platen being attached to a bottom of said heater body, said lead dispensing shuttle plate being slidably retained within said heater body, said lead dispensing shuttle plate dispensing molten lead in a dispensing and receiving molten in a fill position.

24. The method of assembling batteries of claim 23, further comprising:

a container insulator being disposed between said heater body and said container heating platen, a cover insulator being disposed between said heater body and said cover heating platen, a plurality of heater elements being disposed in said heater body, container heating platen, and cover heating platen.



25. The method of assembling batteries of claim 20, further comprising:

each said terminal mold having a terminal cavity formed in a top thereof, at least one liquid coolant path and at least one mold heater being formed in a body of each said terminal mold.